UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/565,629	01/23/2006	Fred Runge	20811/0204480-US0	2308

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EXAMINER
HUYNH, NAM TRUNG

ART UNIT	PAPER NUMBER
2617	

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12/21/2010	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<table>
<tr>
<td rowspan="2">Office Action Summary</td>
<td colspan="2">Application No.</td>
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<td colspan="2">RUNGE ET AL.</td>
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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>07 October 2010</u>.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>50-53 and 55-90</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>50-53 and 55-90</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

Response to Amendment

This office action is in response to amendment filed on 10/7/10. Claim 50 has

been amended.

Claim Rejections - 35 USC § 103

1.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

2.   The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining

obviousness under 35 U.S.C. 103(a) are summarized as follows:

      1.   Determining the scope and contents of the prior art.
      2.   Ascertaining the differences between the prior art and the claims at issue.
      3.   Resolving the level of ordinary skill in the pertinent art.
      4.   Considering objective evidence present in the application indicating
         obviousness or nonobviousness.

3.   Claims 50-53, 55-71, 89, and 90 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Lee et al. (US 7,307,958) in view of Choong et al. (US

2003/0195006).

Regarding claim 50, Lee teaches a method for carrying out a hands-free

communication comprising:

establishing a respective connection from each of a plurality of

telecommunication terminals (handsets) to a service server (BSC/MSC/gateway) over at

least one communication network (figures 1A-1C and 2; handsets are connected to

either a BSC, MSC, or gateway);

loading, at least temporarily, at least one program (software-defined vocoder)

from the service server into at least one of the plurality of telecommunication terminals,

the at least one program being configured to implement a speech processing algorithm

(column 3, lines 47-59; vocoder is downloaded for storage in the handset at least

temporarily for encoding and decoding voice signals);

implementing, in the at least one of the plurality of telecommunication terminals,

the at least one program for use at least for a duration of a communication connection

to process a speech signal (column 3, lines 60-67; column 4, lines 1-5; vocoder is used

for at least the duration of the call); and

transmitting the processed speech signal over the at least one communication

network (column 3, lines 50-53; vocoder encodes and decodes voice signals to be

sent).

Lee teaches that the vocoder is downloaded into the DSP of the handset, but

does not explicitly teach that the speech processing algorithm processes digitized

speech signals in digitized form. Choong discloses a smart vocoder which selects an

optimal vocoder algorithm for encoding a communication. Choong teaches that a voice

signal is applied to a digitizer that digitizes the voice signal and applies it to the vocoder

where it is processed (paragraph 44; figure 6). Therefore it would have been obvious to

one of ordinary skill in the art at the time the invention was made to modify the invention of Lee to allow the vocoder to process digitized speech signals in digitized form, as taught by Choong, in order to allow the DSP to properly process the voice signal and fulfill the intended purpose of the vocoder.

Regarding claim 51, Lee teaches the method as recited in claim 50 wherein the plurality of telecommunication terminals are mobile telecommunication terminals (figures 1A-1C and 2).

Regarding claim 52, Lee teaches the method as recited in claim 50 wherein the speech processing algorithm includes at least one of a hands-free, an echo cancellation, a speaker verification, a speaker recognition, a speaker classification, a voice verification, a voice recognition, a text-to-speech and a noise reduction algorithm (column 3, lines 47-59).

Regarding claim 53, Lee teaches the method as recited in claim 50 further comprising establishing, over the at least one communication network, a connection between the at least one of the plurality of telecommunication terminal terminals and a server-based speech recognition system (column 3, lines 47-59; connection is established to download vocoder).

Regarding claim 55, Lee teaches the method as recited in claim 50 wherein the connection between the service server and the at least one of the plurality of telecommunication terminals is established via an interposed server-based speech recognition system (figures 1A-1C and 2, BSC, MSC, and gateway can literally recognize speech for conducting communications).

Regarding claim 56, Lee teaches the method as recited in claim 50 wherein the

connection is established between the service server and the at least one of the plurality

of telecommunication terminals in response to an automatic or user-defined request

signal (call initiation by calling party) by the at least one of the plurality of

telecommunication terminals (column 3, lines 47-59).

Regarding claim 57, Lee teaches the method as recited in claim 50 wherein the

connection is established between the service server and the at least one of the plurality

of telecommunication terminals in response to a request signal (notification of a call

from calling party's network) of a server-based speech recognition system (column 3,

lines 60-65).

Regarding claim 58, Lee teaches the method as recited in claim 50 wherein the

connection is established between the service server and the at least one of the plurality

of telecommunication terminals using respectively assigned identifiers (identifiers are

used for establishing calls made in wireless networks) (column 3, lines 60-65).

Regarding claim 59, Lee teaches the method as recited in claim 58 wherein the

respectively assigned identifiers include at least one of a CLI, an ANI and an HLR

(typical GSM networks comprise a HLR) (figure 1B).

Regarding claim 60, Lee teaches the method as recited in claim 50 further

comprising transmitting further signals during the communication connection

(notification of calling party's network) (column 3, lines 60-65).

Regarding claim 61, Lee teaches the method as recited in claim 60 wherein the

further signals include at least one of test signals, compensation signals, charging

signals, identification parameters (calling party's network), and vector signals (column 3,

lines 60-65).

Regarding claim 62, Lee teaches the method as recited in claim 50 further

comprising selecting the speech processing algorithm using at least one of a speech

recognition system, and the service server, the at least one of the plurality of

telecommunication terminals (network of called party selects vocoder) (column 3, lines

47-67; column 4, lines 1-5).

Regarding claim 63, Lee teaches the method as recited in claim 50 further

comprising loading the at least one program again during the communication

connection (column 3, lines 47-67; column 4, lines 1-5).

Regarding claim 64, Lee teaches the method as recited in claim 50 further

comprising:

updating the at least one program (the vocoder is updated as the handset moves

between different networks); and

loading, at least temporarily, the updated at least one program into the at least

one of the plurality of telecommunication terminals during the communication

connection (vocoder is loaded when a call is received) (column 3, lines 47-67; column 4,

lines 1-5).

Regarding claim 65, Lee teaches the method as recited in claim 50 further

comprising transmitting, by the at least one of the plurality of telecommunication

terminals, at least one of a specific identification parameter (notification of calling party's

network) and a charging parameter for further processing by a device associated with at

least one of a speech recognition system and the service server (received by called

party's network) (column 3, lines 60-65).

Regarding claim 66, Lee teaches the method as recited in claim 50 further

comprising calibrating, by the at least one of the plurality of telecommunication

terminals, at least one of an A/D conversion and a D/A conversion (DSP) (figure 3, item

302).

Regarding claim 67, Lee teaches the method as recited in claim 66 wherein the

calibrating is performed at least one of once during the communication connection,

continuously, and digitally (figure 3, item 302; DSP processes voice signals during a

call).

Regarding claim 68, Lee teaches the method as recited in claim 66 wherein the

calibrating is performed using a compensation signal, the compensation signal being at

least one of the speech signal and a test signal (figure 3, item 302; DSP processes

voice signals during a call).

Regarding claim 69, Lee teaches the method as recited in claim 67 further

comprising performing a procedure for locating a speech source (figure 3, item 302;

DSP processes voice signals during a call).

Regarding claim 70, Lee teaches the method as recited in claim 69 wherein the

performing the procedure for locating the speech source is performed for a multi-

channel processing of at least two microphone signals (two spoken words during a call)

(figure 3, item 310).

Regarding claim 71, Lee teaches the method as recited in claim 69 wherein the performing the procedure for locating the speech source is performed so as to achieve a noise reduction (DSPs are known in the art to reduce noise for enhancing speech) (figure3, item 310).

Regarding claim 89, Lee teaches the method as recited in claim 62 wherein the speech processing algorithm is selected in response to identification parameters (called party network) associated with the telecommunication terminal (column 3, lines 47-67; column 4, lines 1-5).

Regarding claim 90, Lee teaches the method as recited in claim 62 wherein the speech processing algorithm is selected in response to a current environment (current network) associated with the telecommunication terminal (column 3, lines 47-67; column 4, lines 1-5).

Response to Arguments

4.   Applicant's arguments with respect to claims 50-53, 55-71, 89, and 90 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

5.   Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to NAM HUYNH whose telephone number is (571)272-

5970. The examiner can normally be reached on 8 a.m.-5 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, George Eng can be reached on 571-272-7495. The fax phone number for

the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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